



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,239	10/12/2005	Takashi Akase	Q86397	5200
72875	7590	01/03/2008		
SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037			EXAMINER GOLDBERG, BRIAN J	
			ART UNIT 2861	PAPER NUMBER
			NOTIFICATION DATE 01/03/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com  
kghyndman@sughrue.com  
USPatDocketing@sughrue.com

**Office Action Summary**

Application No.

10/525,239

Applicant(s)

AKASE ET AL.

Examiner

Brian Goldberg

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 October 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: movable guide 83 in Fig. 11. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claim 12 is objected to because of the following informalities: In line 5 of the claim, "a sensor detects" should be "a sensor that detects". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being anticipated by Oda (US 5277506) in view of Krieg et al. (US 4265556).

2. Regarding claim 1, Oda discloses "a fixed guide (6 of Fig 2); a movable guide that is movable in said scanning direction (7 of Fig 2); and a sensor (11 of Fig 2) that detects an edge...in said scanning direction, of said medium to be printed (col 4 ln 43-44, ln 55-57, col 5 ln 25-26), wherein said print start position is determined based on a result of detecting said edge of another medium to be printed (col 5 ln 25-29, ln 50-64)." Thus Oda meets the claimed invention except the sensor detecting the edge "that is guided by said fixed guide."

3. Krieg et al. teach a sensor that detects both edges (see 54 and 44 of Fig 2). Similarly, Oda discloses that the fixed guide and movable guides could be on the opposite side, as shown in Fig 5. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to either detect both edges or interchange the guides, and the apparatus disclosed by Oda in view of Krieg et al. would be capable of achieving the predictable result of sensing either or both edges, at least one of which has a fixed guide, in order to determine the appropriate print start position as set forth in both Oda and Krieg et al.

4. Regarding claim 2, Oda discloses "wherein said result of detecting said edge of said other medium to be printed is stored (42 and 43, ROM and RAM; col 4 ln 55-57, col 5 ln 25-29); and wherein when printing on said medium to be printed, the stored

detection result is read out, and said print start position is determined based on that detection result (col 5 ln 59-65)."

5. Regarding claim 3, Oda discloses "wherein said sensor (11 of Fig 2) is provided on a carriage (3 of Fig 2) that is movable in said scanning direction (see Fig 2, col 4 ln 18-20)."

6. Regarding claim 4, Oda discloses "wherein said print start position is determined based on information about a position of said carriage for when said sensor detected said edge of said other medium to be printed (col 4 ln 41-45, col 5 ln 50-58)."

7. Regarding claim 5, Oda discloses "wherein said position of said carriage is detected using an encoder (col 4 ln 1-5)."

8. Regarding claim 6, Oda discloses "wherein said information about said position of said carriage for when said sensor detected said edge of said other medium to be printed is stored (col 4 ln 41-45, col 5 ln 24-35); wherein when printing on said medium to be printed, said information about said position of said carriage that has been stored is read out (col 5 ln 50-57); and wherein said print start position is determined based on said information about said position of said carriage that has been read out (col 5 ln 50-58)."

9. Regarding claim 7, Oda discloses "wherein information about a relative positional relationship between said edge of said medium to be printed and said print start position is obtained (C1, C2, W1, W2, col 4 ln 37-40); and wherein said print start position is determined based on this information and said result of detecting said edge (col 4 ln 45-57, col 5 ln 30-58)."

10. Regarding claim 8, Oda discloses "wherein said information about said relative positional relationship between said edge of said medium to be printed and said print start position includes information about a blank space that is to be formed on said medium to be printed (C2 of Figs 2 and 5, col 4 ln 30-32)."

11. Regarding claim 9, Oda discloses "wherein information about said medium to be printed is obtained (C1, C2, W1, W2, col 4 ln 37-40); and wherein said print start position is determined based on said information about said medium to be printed and said result of detecting said edge (col 4 ln 45-57, col 5 ln 30-58)."

12. Regarding claim 10, Oda discloses "wherein said information about said medium to be printed includes information about a width of said medium to be printed (W1, W2 of Figs 2 and 5)."

13. Regarding claim 12, Oda discloses "a fixed guide (6 of Fig 2); a movable guide that is movable in said scanning direction (7 of Fig 2); and a sensor (11 of Fig 2) detects an edge...in said scanning direction, of said medium to be printed (col 4 ln 43-44, 55-57, col 5 ln 25-26); wherein said sensor is provided on a carriage (3 of Fig 2) that is movable in said scanning direction (see Fig 2, col 4 ln 18-20); wherein a position of said carriage is detected using an encoder (col 4 ln 1-5); wherein information about said position of said carriage for when said edge of said other medium to be printed was detected is stored (col 4 ln 41-45, col 5 ln 24-35); wherein at least one of information about a width of said medium to be printed and information about a blank space that is to be formed on said medium to be printed is obtained (W1, W2, C2 of Figs 2 and 5, col 4 ln 30-32, ln 37-40); wherein when printing on said medium to be printed, said

information about said position of said carriage is read out (col 5 ln 50-57); and wherein said print start position is determined based on said information about said position of said carriage, and at least one of said information about the width of said medium to be printed and said information about the blank space that is to be formed on said medium to be printed (col 4 ln 41-57, col 5 ln 30-58)." Thus Oda meets the claimed invention except the sensor detecting the edge "that is guided by said fixed guide."

14. Krieg et al. teach a sensor that detects both edges (see 54 and 44 of Fig 2). Similarly, Oda discloses that the fixed guide and movable guides could be on the opposite side, as shown in Fig 5. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to either detect both edges or interchange the guides, and the apparatus disclosed by Oda in view of Krieg et al. would be capable of achieving the predictable result of sensing either or both edges, at least one of which has a fixed guide, in order to determine the appropriate print start position as set forth in both Oda and Krieg et al.

15. Regarding claim 13, Oda discloses "moving a movable guide in said scanning direction (7 of Fig 2); detecting an edge...in said scanning direction, of said medium to be printed (col 4 ln 43-44, ln 55-57, col 5 ln 25-26); and determining said print start position based on a result of detecting said edge of another medium to be printed (col 5 ln 25-29, ln 50-64)." Thus Oda meets the claimed invention except detecting the edge "that is guided by said fixed guide."

16. Krieg et al. teach a sensor that detects both edges (see 54 and 44 of Fig 2). Similarly, Oda discloses that the fixed guide and movable guides could be on the

opposite side, as shown in Fig 5. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to either detect both edges or interchange the guides, and the apparatus disclosed by Oda in view of Krieg et al. would be capable of achieving the predictable result of sensing either or both edges, at least one of which has a fixed guide, in order to determine the appropriate print start position as set forth in both Oda and Krieg et al. Oda in view of Krieg et al. does not explicitly disclose a computer-readable storage medium, but does disclose the process being claimed, as well as a control section 40 constituted of a ROM 42, RAM43, I/O ports 45 and 46, and interface 44, which would inherently be run by a program. It is also well known in the art to provide any control process in a program.

17. Regarding claim 14, Oda discloses "a step of preparing a printing apparatus having a fixed guide (6 of Fig 2), and a movable guide that is movable in a scanning direction (7 of Fig 2); a step of detecting an edge, in said scanning direction...of another medium to be printed (col 4 ln 43-44, ln 55-57, col 5 ln 25-26); a step of determining a print start position based on a result of detecting said edge of said other medium to be printed (col 5 ln 25-29, ln 50-64); and a step of ejecting ink droplets, in said scanning direction, from the determined print start position to print on a medium to be printed that is different from said other medium to be printed (col 5 ln 58-65)." Thus Oda meets the claimed invention except detecting the edge "that is guided by said fixed guide."

18. Krieg et al. teach a sensor that detects both edges (see 54 and 44 of Fig 2). Similarly, Oda discloses that the fixed guide and movable guides could be on the opposite side, as shown in Fig 5. It would have been obvious to one of ordinary skill in



the art at the time of the applicant's invention to either detect both edges or interchange the guides, and the apparatus disclosed by Oda in view of Krieg et al. would be capable of achieving the predictable result of sensing either or both edges, at least one of which has a fixed guide, in order to determine the appropriate print start position as set forth in both Oda and Krieg et al.

19. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oda in view of Wen (US 6109745). Oda discloses the claimed invention as set forth above regarding claim 1. Oda also discloses "wherein said print start position is a position in said scanning direction that is outside of or on the edge of the medium to be printed (not explicitly stated, but C2 of figures 2 and 5 could be zero, which satisfies these conditions)." Thus Oda meets the claimed invention except "wherein printing is carried out on an entire surface of said medium to be printed."

20. Wen teaches "wherein printing is carried out on an entire surface of said medium to be printed (see Figs 3a-c)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to print on an entire surface of the medium. One would have been motivated to so modify Oda for the benefit of achieving borderless printing that is desirable to photographic viewers, which also eliminates any waste medium.

### ***Conclusion***

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Noda (US 3988744) discloses a guide that can be either movable or fixed and a sensor that detects an edge that is guided by said guide.

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP.

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM EST.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on 571-272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/525,239  
Art Unit: 2861

Page 10

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian Goldberg   
AU 2861  
December 20, 2007

  
**MATTHEW LUU**  
**SUPERVISORY PATENT EXAMINER**